Application No. 10/628,041 Paper Dated: April 28, 2005

In Reply to USPTO Correspondence of April 19, 2005

Attorney Docket No. 4721-031125

## **REMARKS**

## I. Restriction Requirement

The Examiner has required restriction to one of either claims 1-16, drawn to a check valve or claims 17-27, drawn to a support and method of supporting a check valve. Applicant hereby elects claims 1-16 for prosecution at this time in connection with the instant application with traverse. Claims 17-27 have been cancelled, as drawn to a non-elected invention.

## II. Rejections Under 35 U.S.C. § 112

The Examiner objected to claim 12 as indefinite for failing to particularly point out and distinctly claim the invention. Particularly, the Examiner indicated that "said support plate" in line 1 of claim 12 lacked antecedent basis. As discussed in more detail below, the subject matter of claim 12 has now been incorporated in claim 1. Claim 12 is thus cancelled, rendering the § 112 rejection moot.

## III. Substantive Rejections

The Examiner rejected claims 1-3, 6-11, 13 and 15 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,931,197 to Raftis et al. The Examiner also rejected claims 1, 3-8, 10, 12, 14, and 16 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 187,411 to Painter. Finally, the Examiner rejected claims 4, 5, 12, 14, and 16 under 35 U.S.C. § 103(a) as obvious over Raftis et al. in view of Painter. In light of the above amendments and following remarks, Applicant respectfully requests withdrawal of these rejections.

Raftis et al. discloses an asymmetrical check valve which, in a certain embodiment, includes a support plate 54 with an extending rod 52, as shown in Figs. 5 and 6.

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Painter discloses a pump valve having braces e and f secured to the inside and

outside of the pump valve, as shown in Fig. 4.

By contrast, amended claim 1 now requires a large diameter check valve (i.e., 20

inches in diameter or greater) having an embedded support plate, which support plate has

a plurality of bonding holes therein and at least one reinforcing rib on the support plate.

Furthermore, the support plate has a size and contour which is similar to an upper portion

of at least the inlet part and the transition part of the check valve. Both Raftis et al. and

Painter teach away from the invention as now claimed, in many respects.

First, Raftis et al. does not include a plurality of bonding holes in the support

plate. The support plate includes bonding holes to more reliably secure the plate within

the thickness of the check valve, during the vulcanization process. Furthermore, the plate

54 in Raftis et al. does not have a size and contour similar to an upper portion of both the

inlet part and the transition part of a check valve. On the contrary, the plate 54 in the

preferred embodiment described in Raftis et al. is located only within the inlet part.

Painter specifically teaches and discloses locating the braces e, f on the interior

and exterior surfaces of a valve. Furthermore, there is no teaching or suggestion for a

reinforcing rib or for bonding holes on the braces e and f of Painter. To the contrary,

there would be no need for such bonding holes in Painter, since its braces are not

imbedded and the braces are instead attached via rivets.

Embedding the support plate, as now required by claim 1, provides the important

added advantage of protecting the plate from highly corrosive environments, such as

wastewater passing through the interior of the check valve.

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The invention as now claimed is thus deemed patentable over Raftis et al. and/or Painter. Removal of the rejections and allowance of the remaining claims is therefore requested.

Respectfully submitted,

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